Water Quality Report 2012

We are pleased to present to you this year's Annual Water Quality Report. This report is designed to inform you about the quality of the water and services we deliver to you every day. Our constant goal is to provide a safe and dependable supply of drinking water. We want you to understand the efforts we make to continually maintain and improve the water treatment process and the water distribution system to protect our water resources. The City is committed to ensuring the quality of your water.

Our water supply comes from groundwater wells that draw water from the upper Floridan Aquifer. All wells supply water to our single Water Treatment Plant (WTP), which was named in honor of former Commissioner Harry Terry who actively encouraged our City to build its own facility. The well water is treated at the WTP with packed tower air stripping, fluoridation and chlorination before it is pumped into the mains that bring water to your home. This year we treated and distributed in excess of 1.152 billion gallons, which averages to 3.156 million gallons daily. The City has four water main interconnections with Seminole County and one with Sanford. We also provide a small quantity of water to Utilities, Inc. on an as-needed basis. These interconnects are available for use during fire emergencies and system repairs.

In 2011 the Department of Environmental Protection performed a Source Water Assessment on our system. The assessment was conducted to provide information about any potential sources of contamination in the vicinity of our wells. There are two potential sources of contamination identified for this system with a moderate susceptibility level. The assessment results are available on the FDEP Source Water Assessment and Protection Program website at www.dep.state.fl.us/swapp or they can be obtained from Public Works at (407) 585-1452.

Our drinking water meets all federal and state requirements. If you have any questions about this report or concerns with your water utility, please contact the Director of Public Works at (407) 585-1452 between the hours of 8:00 am and 5:00 pm, Monday through Friday. In case of any water-related emergency after hours, such as a line or service break, please contact the Police Department at (407) 585-1330. We encourage our valued customers to be informed about their water utility. If you want to learn more, you are invited to attend and participate in any water utility discussions held during City Commission meetings on the 1st and 3rd Thursdays of each month.

The City of Lake Mary routinely monitors for contaminants in your drinking water according to federal and state laws, rules, and regulations. Except where indicated otherwise, this report is based on the results of our monitoring for the period of January 1 to December 31, 2012. The state allows us to monitor for some contaminants less than once per year because the concentrations of these contaminants do not change frequently. Some of our data, though representative, are more than one year old.

In the following tables you may find unfamiliar terms and abbreviations. To help you better understand these terms, we've provided the following definitions:

Maximum Contaminant Level or MCL: The highest level of a contaminant that is allowed in drinking water. MCLs are set as close to the MCLGs as feasible using the best available treatment technology.

Maximum Contaminant Level Goal or MCLG: The level of a contaminant in drinking water below which there is no known or expected risk to health. MCLGs allow for a margin of safety.

Action Level (AL): The concentration of a contaminant which, if exceeded, triggers treatment or other requirements that a water system must follow.

Maximum Residual Disinfectant Level or MRDL: The highest level of a disinfectant allowed in drinking water. There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants.

Maximum Residual Disinfectant Level Goal or MRDLG: The level of a drinking water disinfectant below which there is no known or expected risk to health. MRDLGs do not reflect the benefits of the use of disinfectants to control microbial contaminants.

"**ND**" means not detected and indicates that the substance was not found by laboratory analysis.

Parts per million (ppm) or Milligrams per liter (mg/L) – one part by weight of analyte to 1 million parts by weight of the water sample.

Parts per billion (ppb) or Micrograms per liter (µg/L) – one part by weight of analyte to 1 billion parts by weight of the water sample.

Picocurie per liter (pCi/L) - measure of the radioactivity in water.

Initial Distribution System Evaluation (IDSE) – An important part of the Stage 2 Disinfection Byproducts Rule (DBPR). The IDSE is a one-time study conducted by water systems to identify distribution system locations with high concentrations of trihalomethanes (THMs) and haloacetic acids (HAAs). Water systems will use results from the IDSE, in conjunction with their Stage 1 DBPR compliance monitoring data, to select compliance monitoring locations for the Stage 2 DBPR.

WATER QUALITY TESTING RESULTS

Microbial Contaminant						
Contaminant and Unit of Measurement	**Dates of Sampling (mo./yr.)**	**MCL Violation Y/N**	**Highest Monthly Percentage/Number**	**MCLG**	**MCL**	**Likely Source of Contamination**
Total Coliform Bacteria	Jan - Dec 2012	N	0%	0	presence in >1 sample collected during a month	Naturally present in the environment

Radioactive Contaminants							
Contaminant and Unit of Measurement	**Dates of sampling (mo./yr.)**	**MCL Violation Y/N**	**Level Detected**	**Range of Results**	**MCLG**	**MCL**	**Likely Source of Contamination**
Alpha emitter	March 2008	N	1.9 pCi/l	1.9 pCi/l	N/A	15 pCi/l	Erosion of natural deposits

Inorganic Contaminants							
Arsenic (ppb)	March 2011	N	.12	.12	N/A	10	Erosion of natural deposits; runoff from orchards; runoff from glass and electronics production wastes
Barium	March 2011	N	.0081	.0081	2	2	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits
Fluoride (ppm)	March 2011	N	.69	.69	4	4	Erosion of natural deposits; discharge from fertilizer and aluminum factories. Water additive which promotes strong teeth when at optimum levels between 0.7 and 1.3 ppm
Lead (point of entry) (ppb)	March 2011	N	.25	.25	N/A	15	Residue from man-made pollution such as auto emissions and paint; lead pipe, casing, and solder
Nitrate (as Nitrogen) (ppm)	May 2012	N	.27	.27	10.0	10.0	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
Sodium (ppm)	March 2011	N	7.40	7.40	N/A	160	Salt water intrusion; leaching from soil

Stage 1 Disinfectant/Disinfection By-Product							
Chlorine, ppm	Jan – Dec 2012	N	0.6	0.5 – 1.7	MRDLG 4.0	MRDL 4.0	Water additive used to control microbes
Haloacetic Acids (five) (HAA5), ppb	Aug 2012	N	16.56	16.56	N/A	60	By-product of drinking water disinfection
TTHM (Total Trihalomethanes), ppb	Aug 2012	N	35.19	35.19	N/A	80	By-product of drinking water disinfection

Lead and Copper (Tap Water)							
Contaminant and Unit of Measurement	**Dates of sampling (mo./yr.)**	**AL Violation Y/N**	**90th Percentile Result**	**No. of sampling sites exceeding the AL**	**MCLG**	**AL (Action Level)**	**Likely Source of Contamination**
Copper (tap water) (ppm)	July 2012	N	0.18	0	1.3	1.3	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives
Lead (tap water) (ppb)	July 2012	N	1.65	0	0.0	15	Corrosion of household plumbing systems; erosion of natural deposits

As you can see by the table, our system had no violations.
We're proud that your drinking water meets or exceeds all federal and state requirements.

If present, elevated levels of lead can cause serious health problems, especially for pregnant women and young children. Lead in drinking water is primarily from materials and components associated with service lines and home plumbing. The City of Lake Mary is responsible for providing high quality drinking water, but cannot control the variety of materials used in plumbing components. When your water has been sitting for several hours, you can minimize the potential for lead exposure by flushing your tap for 30 seconds to 2 minutes before using water for drinking or cooking. If you are concerned about lead in your water, you may wish to have your water tested. Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available from the Safe Drinking Water Hotline at 1-800-426-4791 or http://www.epa.gov/safewater/lead.

Lead: Lead in drinking water is rarely the sole cause of lead poisoning, but it can add to a person's total lead exposure. All potential sources of lead in the household should be identified and removed, replaced or reduced.

The sources of drinking water (both tap water and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs, and wells. As water travels over the surface of the land or through the ground, it dissolves naturally occurring minerals and, in some cases, radioactive material, and can pick up substances resulting from the presence of animals or from human activity.

Contaminants that may be present in source water include:

(A) Microbial contaminants, such as viruses and bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife.

(B) Inorganic contaminants, such as salts and metals, which can be naturally-occurring or result from urban stormwater runoff, industrial or domestic wastewater discharges, oil and gas production, mining, or farming.

(C) Pesticides and herbicides, which may come from a variety of sources such as agriculture, urban stormwater runoff, and residential uses.

(D) Organic chemical contaminants, including synthetic and volatile organic chemicals, which are by-products of industrial processes and petroleum production, and can also come from gas stations, urban stormwater runoff, and septic systems.

(E) Radioactive contaminants, which can be naturally occurring or be the result of oil and gas production and mining activities.

In order to ensure that tap water is safe to drink, the EPA prescribes regulations, which limit the amount of certain contaminants in water provided by public water systems. The Food and Drug Administration (FDA) regulations establish limits for contaminants in bottled water, which must provide the same protection for public health.

Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. The presence of contaminants does not necessarily indicate that the water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the Environmental Protection Agency's Safe Drinking Water Hotline.

Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised persons such as persons with cancer undergoing chemotherapy, persons who have undergone organ transplants, people with HIV/AIDS or other immune system disorders, some elderly, and infants can be particularly at risk from infections. These people should seek advice about drinking water from their health care providers. EPA/CDC guidelines on appropriate means to lessen the risk of infection by Cryptosporidium and other microbiological contaminants are available from the Safe Drinking Water Hotline.

The City of Lake Mary would like you to understand the efforts we make to continually improve the water treatment process and protect our water resources. We are committed to ensuring the quality of your water. If you have any questions or concerns about the information provided, please call 407-585-1452.

City of Lake Mary
Public Works Department
P.O. Box 958445
Lake Mary, FL 32795-8445